

ABSTRACT

An engine starter that rotates at a rated speed after a ring gear meshes with a pinion slowly characterized by a wide variety of tolerance in manufacturing, and the inclusion of a magnet switch having an auxiliary contact being protected from an adverse effect of metal powder that could generate as a result of friction between contacts occurring during the closing and opening of the main contact. The starter comprises a starter motor, a pinion that moves back and forth relative to an engine ring gear to engage or disengage with the ring gear, when driven by the starter motor, main and auxiliary contacts for driving the starter motor by two different speeds, a resistor connected to the auxiliary contact, a plunger assembly that supports the movable contact points of the main and auxiliary contacts and shuttles between the non-working and working positions of the movable contact points, a switch coil causing the plunger assembly to move to put the main and auxiliary contacts in and out of contact, and a starter switch including a driving mechanism causing the pinion to advance toward and recede from the ring gear.